

PROJECT: Magna-3	UNIT TAG: _____	QUANTITY: 1
REPRESENTATIVE: _____	TYPE OF SERVICE: Cast Iron Pump Configuration	DATE: _____
ENGINEER: Hurley Engineering	SUBMITTED BY: Devin Carle	DATE: _____
CONTRACTOR: TBD	APPROVED BY: _____	DATE: _____
	ORDER NO.: _____	DATE: _____

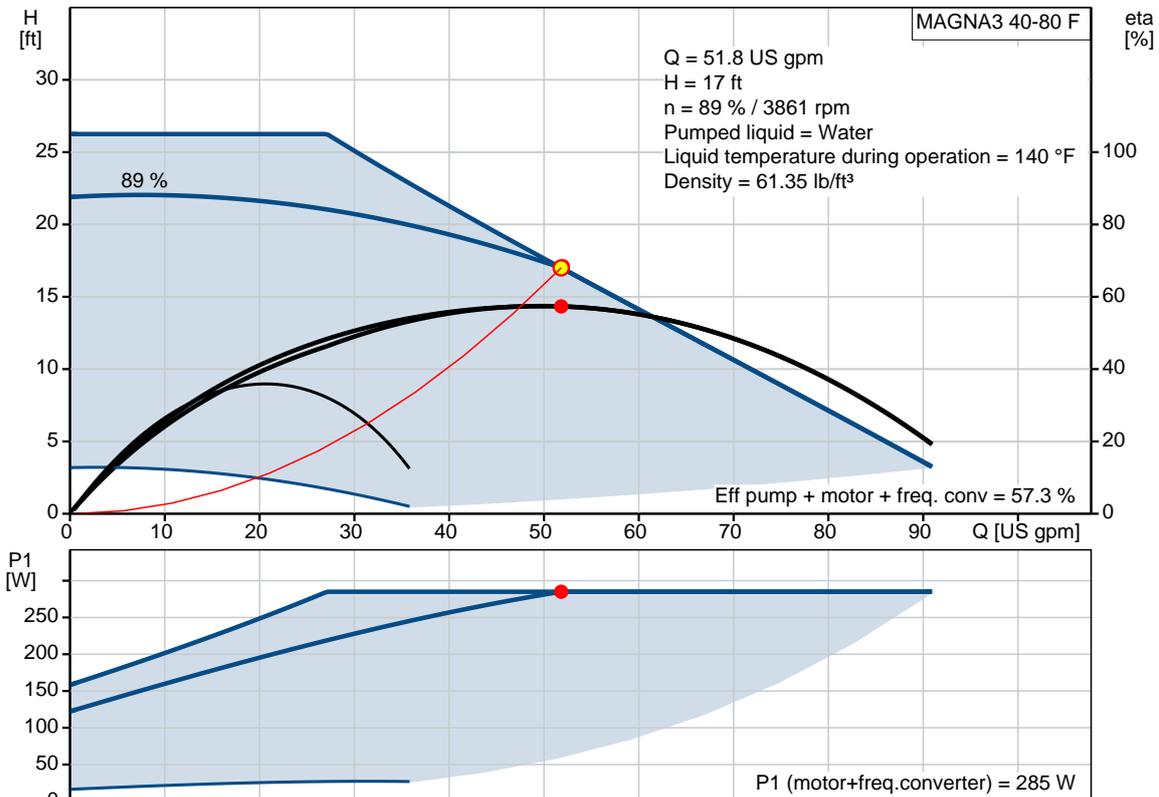


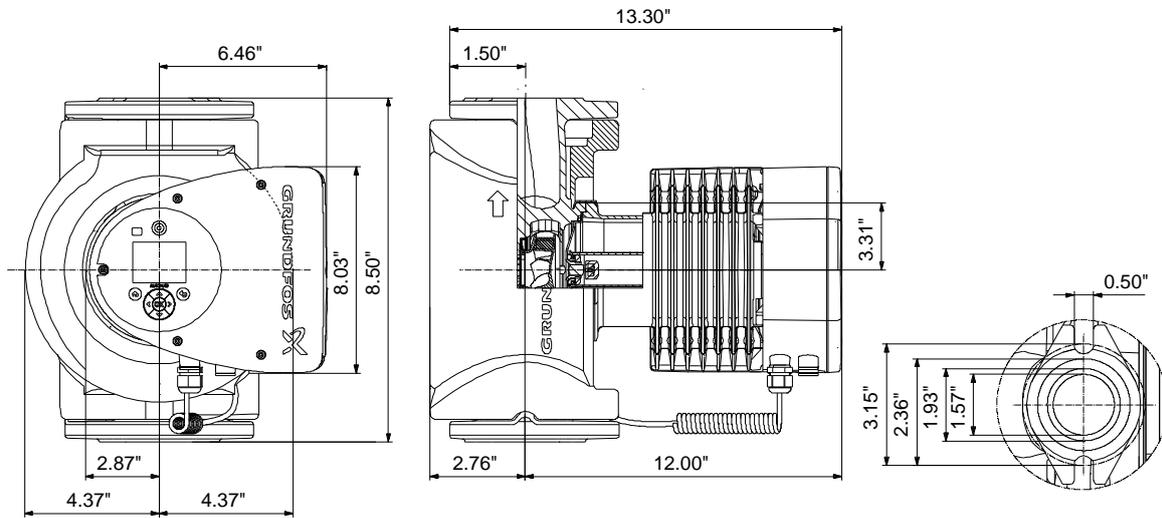
## MAGNA3 40-80 F

Full range of intelligent, high-efficiency circulators for heating, cooling, ground source heat pump systems and domestic hot water applications

Product photo could vary from the actual product

Conditions of Service	Pump Data	Motor Data
Flow: 51.8 US gpm	Maximum operating pressure: 174.05 psi	P1 max: 16 .. 285 W
Head: 17 ft	Liquid temperature range: 14 .. 230 °F	Rated voltage: 115 V
Efficiency: 57.3 %	Maximum ambient temperature: 104 °F	Main frequency: 60 Hz
Liquid: Water	Approvals: 98544605	Enclosure class: X4D
Temperature: 140 °F	Flange standard: GF	Insulation class: F
NPSH required: ft	Pipe connection: GF15/26/40/43	
Viscosity: _____	Product number: 98126800	
Specific Gravity: 0.985		





**Materials:**

Pump housing: Cast iron  
 EN-GJL-250  
 ASTM A48-250B

Impeller: PES 30%GF

Count	Description
1	<p data-bbox="288 405 502 441"><b>MAGNA3 40-80 F</b></p>  <p data-bbox="288 734 568 763">Product No.: <a href="#">98126800</a></p> <p data-bbox="288 792 1370 902"><b>MAGNA3 – More than a pump</b> With its unrivalled efficiency, all-encompassing range and built-in communication capabilities plus functionalities replacing system components, the MAGNA3 is ideal for engineers and specifiers looking to create high-performance systems for buildings.</p> <p data-bbox="288 911 1337 965">This pump in the Grundfos Master Class will fit both heating and cooling applications perfectly, making it the obvious choice for almost any building project – old or new.</p> <p data-bbox="288 999 1361 1137">The MAGNA3 is of the canned-rotor type, i.e. pump and motor form an integral unit without shaft seal and with only two gaskets for sealing. The bearings are lubricated by the pumped liquid. The innovative clamp with only one screw enables easy repositioning of the pump head. The MAGNA3 is a pump with no maintenance requirements and with extremely low Life Cycle Cost.</p> <p data-bbox="288 1171 890 1469">The pump is characterised by the following:</p> <ul data-bbox="288 1205 890 1469" style="list-style-type: none"><li>• controller integrated in the control box</li><li>• control panel with TFT display on the control box</li><li>• control box prepared for optional CIM modules</li><li>• built-in differential-pressure and temperature sensor</li><li>• cast-iron pump housing (depending on model)</li><li>• carbon-fiber-reinforced composite rotor can</li><li>• stainless-steel bearing plate and rotor cladding</li><li>• aluminium alloy stator housing</li><li>• air-cooled power electronics</li></ul> <p data-bbox="288 1471 724 1500">The MAGNA3 is a single-phase pump.</p> <p data-bbox="288 1532 552 1561"><b>Characteristic features</b></p> <ul data-bbox="288 1563 1329 1937" style="list-style-type: none"><li>• AUTOADAPT.</li><li>• FLOWADAPT and FLOWLIMIT (more than a pump function as it reduces the need for pump throttling valves).</li><li>• Proportional-pressure control.</li><li>• Constant-pressure control.</li><li>• Constant-temperature control.</li><li>• Constant-curve duty.</li><li>• Max. or min. curve duty.</li><li>• Automatic Night Setback.</li><li>• No external motor protection required.</li><li>• Insulating shells supplied with single-head pumps for heating systems.</li><li>• Large temperature range where the liquid temperature and the ambient temperature are independent of each other.</li></ul> <p data-bbox="288 1973 916 2027"><b>Communication</b> The MAGNA3 enables communication via the following:</p>



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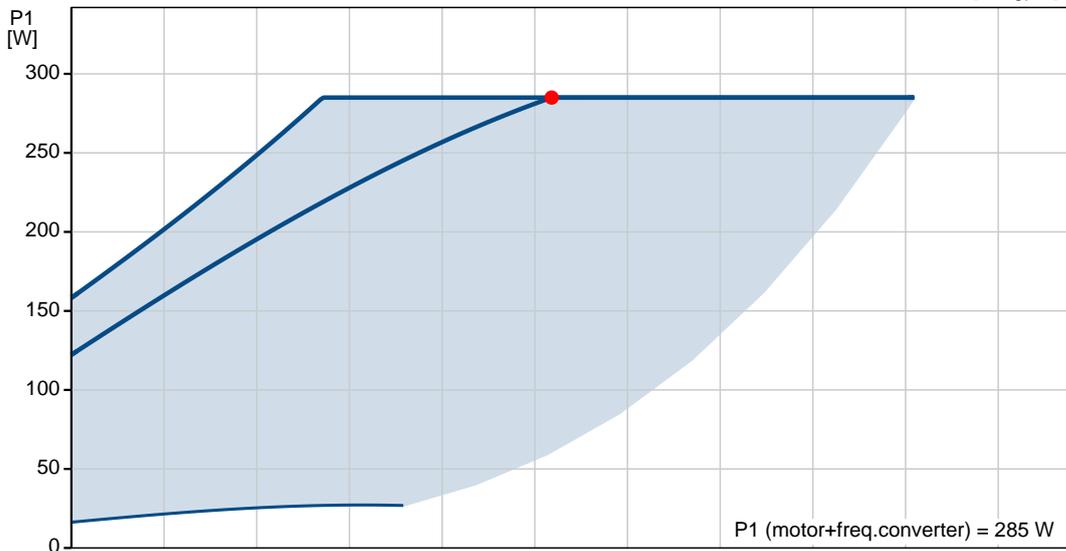
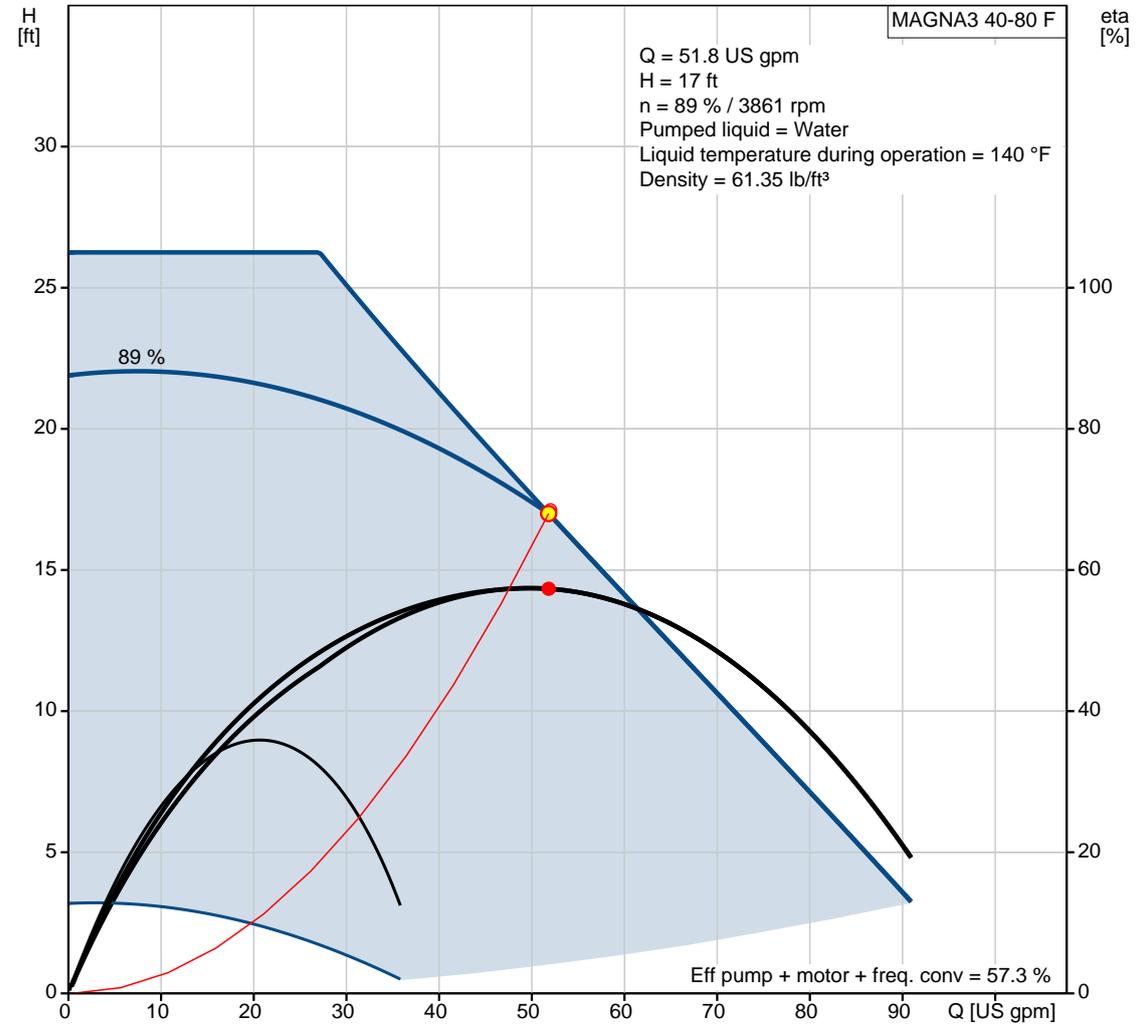
Count	Description
	<ul style="list-style-type: none"><li>• wireless Grundfos GO Remote</li><li>• fieldbus communication via CIM modules</li><li>• digital inputs</li><li>• relay outputs</li><li>• analog input (more than a pump function as heat energy meter)</li></ul> <p>Motor and electronic controller The MAGNA3 incorporates a 4-pole synchronous, permanent-magnet motor (PM motor). This motor type is characterised by higher efficiency than a conventional asynchronous squirrel-cage motor. The pump speed is controlled by an integrated frequency converter. A differential-pressure and temperature sensor is incorporated in the pump.</p> <p><b>Liquid:</b> Pumped liquid: Water Liquid temperature range: 14 .. 230 °F Selected liquid temperature: 140 °F Density: 61.35 lb/ft<sup>3</sup></p> <p><b>Technical:</b> Actual calculated flow: 51.8 US gpm Resulting head of the pump: 17 ft TF class: 110 Approvals on nameplate: 98544605</p> <p><b>Materials:</b> Pump housing: Cast iron EN-GJL-250 ASTM A48-250B Impeller: PES 30%GF</p> <p><b>Installation:</b> Range of ambient temperature: 32 .. 104 °F Maximum operating pressure: 174.05 psi Flange standard: GF Pipe connection: GF15/26/40/43 Pressure stage: PN12 Port-to-port length: 8 9/16 in</p> <p><b>Electrical data:</b> Power input - P1: 16 .. 285 W Main frequency: 60 Hz Rated voltage: 1 x 115 V Maximum current consumption: 0.3 .. 2.57 A Enclosure class (IEC 34-5): X4D Insulation class (IEC 85): F</p> <p><b>Others:</b> Energy (EEI): 0.20 Net weight: 31.6 lb Gross weight: 34.9 lb Shipping volume: 1060 ft<sup>3</sup> Country of origin: US Custom tariff no.: 8413.70.2005</p>



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### 98126800 MAGNA3 40-80 F 60 Hz

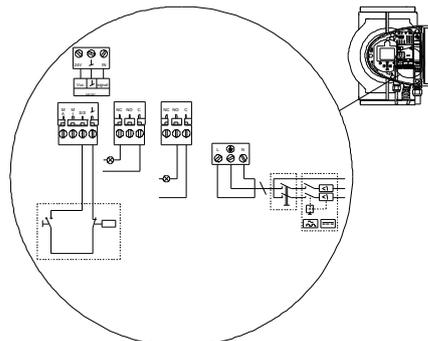
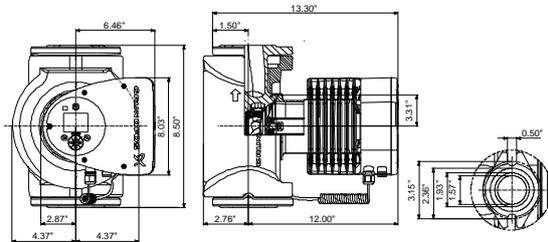
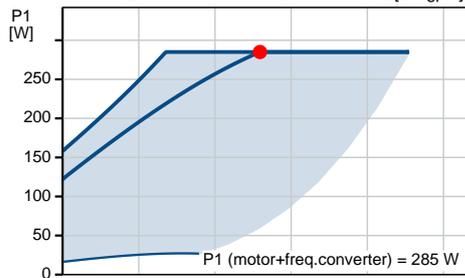
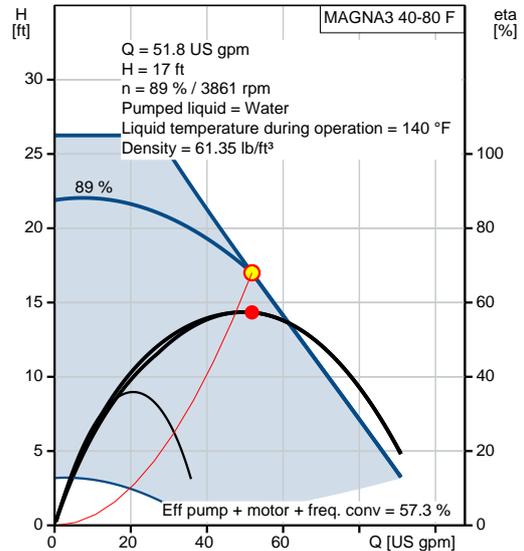




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Description	Value
<b>General information:</b>	
Product name:	MAGNA3 40-80 F
Product No.:	98126800
EAN:	5710629499622
	5710629499622
<b>Technical:</b>	
Actual calculated flow:	51.8 US gpm
Resulting head of the pump:	17 ft
Head max:	26.25 ft
TF class:	110
Approvals on nameplate:	98544605
Model:	D
<b>Materials:</b>	
Pump housing:	Cast iron
	EN-GJL-250
	ASTM A48-250B
Impeller:	PES 30%GF
<b>Installation:</b>	
Range of ambient temperature:	32 .. 104 °F
Maximum operating pressure:	174.05 psi
Flange standard:	GF
Pipe connection:	GF15/26/40/43
Pressure stage:	PN12
Port-to-port length:	8 9/16 in
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	14 .. 230 °F
Selected liquid temperature:	140 °F
Density:	61.35 lb/ft <sup>3</sup>
<b>Electrical data:</b>	
Power input - P1:	16 .. 285 W
Main frequency:	60 Hz
Rated voltage:	1 x 115 V
Maximum current consumption:	0.3 .. 2.57 A
Enclosure class (IEC 34-5):	X4D
Insulation class (IEC 85):	F
<b>Others:</b>	
Energy (EEI):	0.20
Net weight:	31.6 lb
Gross weight:	34.9 lb
Shipping volume:	1060 ft <sup>3</sup>
Country of origin:	US
Custom tariff no.:	8413.70.2005

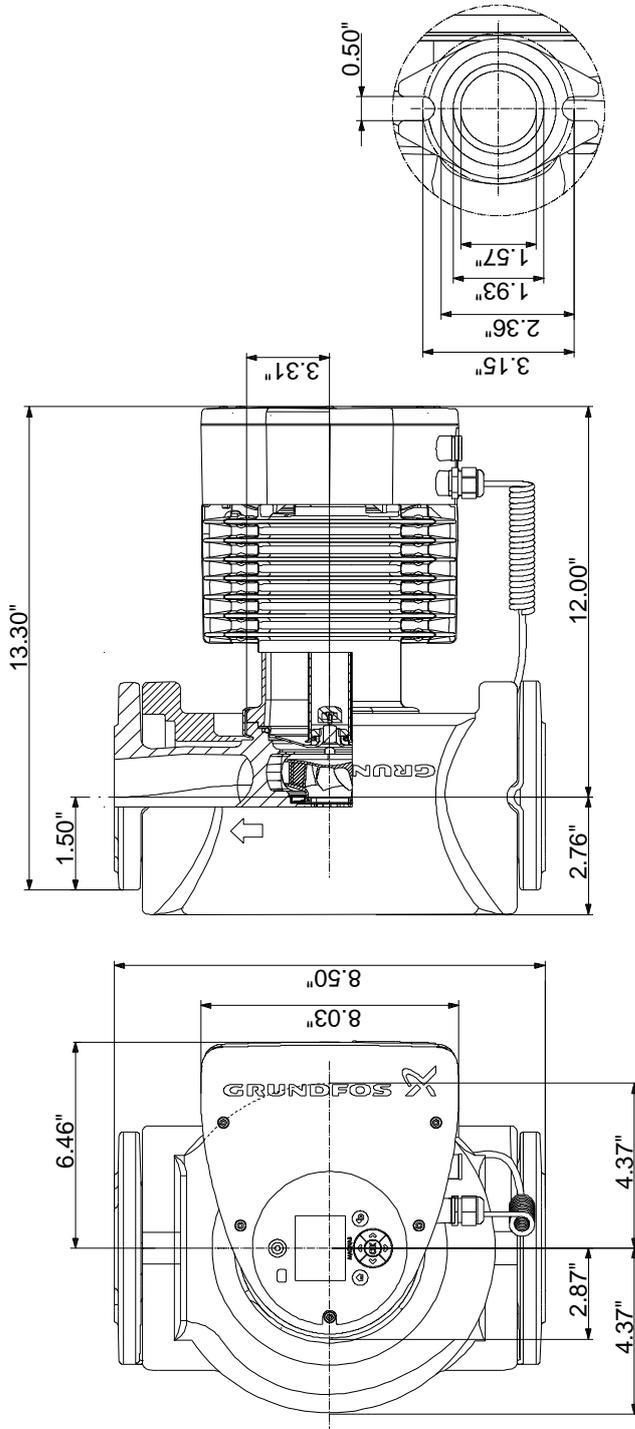




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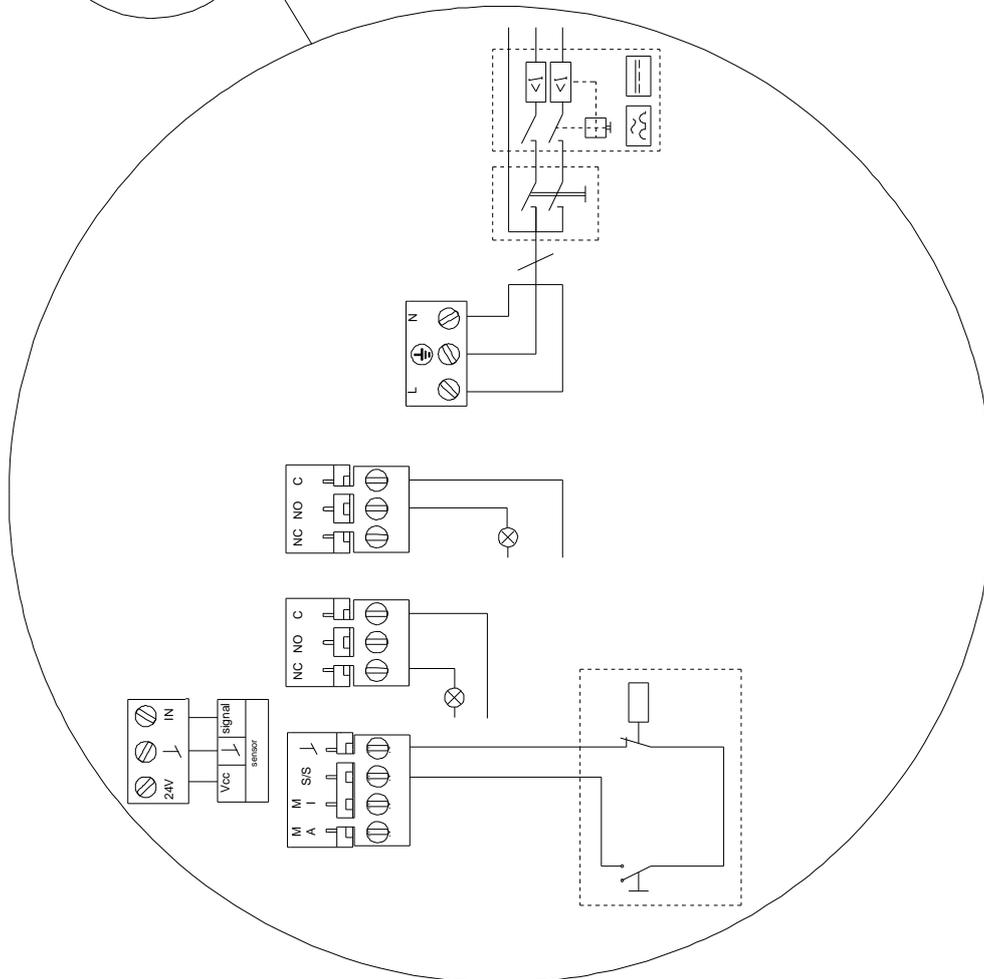
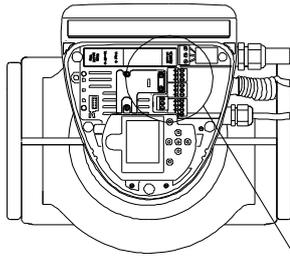
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Note! All units are in [in] unless otherwise stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

**98126800 MAGNA3 40-80 F 60 Hz**



All units are [in] unless otherwise presented.